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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/510,675

10/06/2004

George R. Pettit

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05/16/2006

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EXAMINER

KEYS, ROSALYND ANN

ART UNIT

PAPER NUMBER

1621

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/510,675	Applicant(s) PETTIT ET AL.	
	Examiner Rosalynd Keys	Art Unit 1621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-18 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4, 14 and 18 is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-13 and 15-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/06/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Status of Claims

1. Claims 1-4 and 6-18 are pending.

Claims 4, 14, 18 are allowed.

Claims 1-3, 6-13, and 15-17 are rejected.

A claim 5 is canceled.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 6-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claims 6-10 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: the steps which are represented by the letters a-f above the arrows in each of claims 6-10. The compounds and intermediates and products are disclosed in the claims. However, the steps that are carried out to obtain said intermediates and final products are not disclosed in the claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. Thus, although the steps for obtaining the intermediates and final products are disclosed in the specification, these limitations are not read into the claims. Further, the Applicants have not provided any information to show which steps in the specification corresponds to the letters a-f.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 2, 7 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Spath et al. (Synthesis of pterostilbene. Ber. February 1941, Vol. 74B, pages 189-192). Spath et al. teach the claimed invention (see entire disclosure, in particular compound I on page 189 and page 191).

6. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Takaoka (Proceedings of the Imperial Academy (Tokyo), October 1940, Vol. 16, pages 405-407).

Takaoka teach the claimed compounds (see compound VIII on page 406).

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

7. Claims 1, 11 and 15 are rejected under 35 U.S.C. 102(a) as being anticipated by Ghai et al. (US 2002/0028852 A1).

Ghai et al. teach the claimed cis compound, composition and that said compound has anti-tumor promoting activity (see paragraphs 0003, 0012, 0013, 0016, 0017, 00019 and Table 1).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 3 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gracza et al. (Journal of Chromatography, April 1984, Vol. 287, No. 2, pages 462-465).

Gracza et al. teach a compound which is a geometric isomer (trans isomer) of the claimed compound. One having ordinary skill in the art would have found the claimed compound and composition obvious over the compound taught by Gracza et al. because compounds which have very close structural similarities are expected to have similar properties absent a showing of unexpected results. Further, it is obvious to add a carrier to an obvious compound.

12. Claims 3, 13 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryu et al. (Arch. Pharm. Res., January 1994, Vol. 17, No. 1, pages 42-44).

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Ryu et al. teach the trans isomer of the instant claimed compound (see entire disclosure, in particular page 43). The compound taught by Ryu et al. is disclosed as having anti-tumor activity. One having ordinary skill in the art would have found the instant compound, composition and method obvious over the teachings of Ryu et al. because of the close structural similarity and similar utility of the instant compounds with those disclosed by Ryu et al.

13. Claims 1, 11 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ghai et al. (US 2002/0028852 A1).

Ghai et al. teach the trans isomer of the instant claimed compound. The compound taught by Ghai et al. is disclosed as having cancer preventive activity. One having ordinary skill in the art would have found the instant compound, composition and method obvious over the teachings of Ghai et al. because of the close structural similarity and similar utility of the instant compounds with those disclosed by Ghai et al.

14. Claims 1, 2, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takaoka (Proceedings of the Imperial Academy (Tokyo), October 1940, Vol. 16, pages 405-407).

Takaoka teach the claimed compound, but fail to teach a pharmaceutical composition comprising the compound. However, since it is known that resveratrol has pharmaceutical use one having ordinary skill in the art would expect derivatives of resveratrol to also have pharmaceutical use and would find it obvious to add a pharmaceutical carrier to the compound to make it pharmaceutically acceptable.

15. Claims 1-3, 11-13 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soby et al. (US 2003/0118617 A1).

Soby et al. teach resveratrol analogues which may contain methoxy and hydroxyl

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substituents and include both the cis and trans isomers (see entire disclosure, in particular paragraphs 0014-0015, 0019 and claims 1, 6, 8, 11 and 14-16). The instant claims are considered to be obvious over the teachings of Soby et al. because although Soby et al. do not expressly disclose the claimed compounds, said compounds are clearly suggested by Soby et al. Further, Soby et al. teach that resveratrol analogues are known to be carcinogenesis-inhibiting agents (see paragraph 0007). Thus, the instant compounds are obvious over the compounds of Soby et al. since they have similar structures and utility. See *In re Payne*, 606 F.2d 303, 313, 203 USPQ 245, 254 (CCPA 1979) ("An obviousness rejection based on similarity in chemical structure and function entails the motivation of one skilled in the art to make a claimed compound in expectation that compounds similar in structure will have similar properties.").

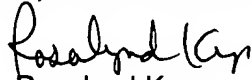
Allowable Subject Matter

16. Claims 4, 14 and 18 are allowed.
17. Claims 6-10 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.
18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rosalynd Keys whose telephone number is 571-272-0639. The examiner can normally be reached on M-W & F 4-10pm; H 5:30am-5pm; Sat 8am-1pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Rosalynd Keys
Primary Examiner
Art Unit 1621

May 11, 2006